BIOGRAPHICAL SKETCH

VARADHACHARY, ATUL, M.D., PH.D.	PRESIDENT & CHIEF OPERATING OFFICER, AGENNIX, INC.

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
University of Bombay, L.T.M. Medical College, India	M.D.	1981-1985	Medicine
L.T.M. Medical College, India, University of Bombay, India		1986-1987	Medical Internship
Education Commission for Foreign Medical Graduates, Philadelphia		1988	Medical Certification
Johns Hopkins University School of Medicine, Baltimore	Ph.D.	1987-1992	Physiology
Johns Hopkins University School of Medicine, Baltimore	Post-Doc	1992-1994	Biological Chemistry

PROFESSIONAL AND ACADEMIC APPOINTMENTS

2001-present **Agennix Inc**, Houston, TX. Chief Operating Officer
- Design and direct all preclinical research and development
- Select and help design and manage rhLF related clinical indications and trials
- Direct patent prosecution and manufacturing scale-up

2002-present **Jones Graduate School of Management**, Rice University, Houston. Adjunct Professor of Management

2003-present **Baylor College of Medicine**, Houston. Adjunct Professor, Department of Molecular & Cellular Biology

1998-1999 **Pratham Health**, Mumbai, India. Program Founder (while on leave from McKinsey & Co.)
Designed and implemented a preventive health program for over 50,000 preschool slum children, at an annual cost of less than a dollar a child.

1994-2001 **McKinsey & Company**, Houston. Senior Engagement Manager, Houston, Texas.
Served a broad range of clients in different functional areas including Drug Research and Development support to Pharmaceutical and Biotech firms.

SELECTED PUBLICATIONS

Phase I trial of oral talactoferrin alfa in refractory solid tumors. Teresa G. Hayes, Gerald F. Falchook, Gauri R. Varadhachary, Dori P. Smith, Lisa D. Davis, Hari M. Dhingra, Benjamin P. Hayes, and Atul Varadhachary. *Investigational New Drugs*, 2005. In Press; Published online September 20, 2005

Atul Varadhachary, Jeffrey S. Wolf, Karel Petrak, Bert W. O'Malley, Jr., Michela Spadaro, Claudia Curcio, Guido Forni, and Federica Pericle. Oral Lactoferrin Inhibits the Growth of Established Tumors and Potentiates Conventional Chemotherapy. *International Journal of Cancer*, 2004; 111(3):398-403.

Jose Engelmayer and Atul Varadhachary. Properties and Application of Recombinant Human Lactoferrin to Enhance Healing of Diabetic Wounds. *Wounds*, 2003; 15(9): 294-301.

SELECTED ABSTRACTS AND PRESENTATIONS

Adding oral talactoferrin to first-line NSCLC chemotherapy safely enhanced efficacy in a randomized trial. Y Wang, D Raghunadharao, G Raman, DC Doval, SH Advani, PK Julka, PM Parikh, S Patil, S Nag, LF0206 Group, A Varadhachary. *Proceedings of the American Society of Clinical Oncology*, 2006.

Talactoferrin alfa is an anti-cancer agent with activity in Renal Cell Cancer (RCC) patients and a novel immunomodulatory mechanism of action. Atul Varadhachary, Michela Spadaro, Jose Engelmayer, Paul Blezinger, VE Ted Valli, Karel Petrak, Federica Pericle, Margalit B. Mokyr, Guido Forni, and Teresa G. Hayes. *Proceedings of the American Society of Clinical Oncology*, 2006.

Talactoferrin induces key chemokines and cytokines in promoting wound healing in animals and in Phase 2 human trials. Jose Engelmayer, Paul Blezinger, and Atul Varadhachary. *Proceedings of the Wound Healing Society Annual Meeting*, 2006.

Double-Blind, Placebo Controlled Trial of Oral Talactoferrin in Combination Therapy for First-Line Non-Small Cell Lung Cancer (NSCLC). Yenyun Wang, NSCLC Clinical Investigator Group, Ernest Yankee and Atul Varadhachary. *Proceedings of the American Society of Clinical Oncology*, 2005.

Oral Talactoferrin Combined with Standard First-Line Chemotherapy in Non-Small Cell Lung Cancer (NSCLC). Atul Varadhachary, Talactoferrin Clinical Team, Ernest Yankee and Yenyun Wang. *Proceedings of the American Association of Cancer Research*, 2005.

Talactoferrin Alfa, A Novel Immunomodulatory Agent. Atul Varadhachary, Michela Spadaro, Claudia Curcio, Ernest Yankee, Federica Pericle, Guido Forni, and Yenyun Wang. *Conference on Translational Immunology Related to Cancer, National Cancer Institute, 2005.*

Oral recombinant human lactoferrin inhibits the growth of PF p185neu+ tumors in vivo through NK-T, CD8+ and antibody-mediated responses. Michela Spadaro, Claudia Curcio, Atul Varadhachary, Guido Forni, Federica Pericle. *Keystone Conferences, 2005.*

Oral recombinant human Lactoferrin (rhLF) slows tumor growth in metastatic NSCLC and other advanced incurable cancers: Results of a Phase II study. TG Hayes, GR Varadhachary, G Falchook, D Smith, HM Dhingra, and A Varadhachary. *Proceedings, American Society of Clinical Oncology*, 2004.

Recombinant Human Lactoferrin (rhLF), a promising new agent for the treatment of metastatic renal cell carcinoma. A Varadhachary, G Falchook, GR Varadhachary, D Smith, HM Dhingra and TG Hayes. *Proceedings of the American Society of Clinical Oncology*, 2004.

Oral Recombinant Human Lactoferrin Induces Systemic Immune Responses and Inhibits the Growth of Established Tumors. Atul Varadhachary, Karel Petrak, Jeffrey S. Wolf, Bert W. O'Malley, Michela Spadaro, Claudia Curcio, Guido Forni and Federica Pericle. *Proceedings of the American Association of Cancer Research*, 2004.

Atul Varadhachary, Karel Petrak, Jeffrey S. Wolf, Bert W. O'Malley, Federica Pericle. Recombinant Human lactoferrin: a Novel Oral Anti-Cancer Drug. *Proceedings of the American Society of Clinical Oncology*, 2003.

Teresa G. Hayes, Gauri R. Varadhachary, Dori Smith, Dawn Hintz, Atul Varadhachary. Phase I/II Clinical Trial of Oral Recombinant Human Lactoferrin in the Treatment of Chemo Resistant Solid Tumors. *Proceedings of the American Society of Clinical Oncology*, 2003.

Atul Varadhachary, Jeffrey S. Wolf, Karel Petrak, Bert W. O'Malley, Jr., Michela Spadaro, Claudia Curcio, Guido Forni, and Federica Pericle. Oral Lactoferrin Inhibits the Growth of Established Tumors and Potentiates Conventional Chemotherapy. *Proceedings of the 56th Annual Symposium on Fundamental Cancer Research, 2003.*

Karel Petrak, Federica Pericle, and Atul Varadhachary. Oral Recombinant Human Lactoferrin Induces Systemic Immune Responses and Inhibits the Growth of Established Tumors. *Cytokines and Beyond*, 2003.

Atul Varadhachary, Karel Petrak, Bert O'Malley, Jr., and Ernest Yankee. Intratumoral injection of human recombinant Lactoferrin inhibits the growth of human tumors implanted in athymic nude mice. *Proceedings of the American Society of Clinical Oncology*, 2002.

Brent A. Martinson, Jenney Kim, Atul Varadhachary, and Linda L. Baum. Optimized Conditions for Stimulation of PBMC by Recombinant Human Lactoferrin (rhLF). *Proceedings of the American Association of Immunologists Annual Meeting*, 2003.

Recombinant Human lactoferrin (rhLF): A Novel Oral Anti-Asthma Drug. Atul Varadhachary, Peter Glynn, William Abraham. *Proceedings of the American Thoracic Society*, 2004.

Oral Recombinant Human Lactoferrin (RhLF) in a Non-human Primate Model of Asthma. M.R. Van Scott, P Glynn, A Varadhachary. *Proceedings of the American Academy of Allergy Asthma Allergy and Immunology*, 2004.

Peter Glynn and Atul Varadhachary. Recombinant human lactoferrin: a novel agent for the treatment of allergic asthma. (Invited manuscript, in preparation).

Jose Engelmayer and Atul Varadhachary. Properties and Application of Recombinant Human Lactoferrin to Enhance Healing of Diabetic Wounds. *Wounds*, 2003; 15(9): 294-301.

Jose Engelmayer and Atul Varadhachary. Recombinant human lactoferrin accelerates wound healing. *Proceedings of the Wound Healing Society Annual Meeting*, 2003.

Atul Varadhachary and Rick Barsky. Development of Recombinant Human Lactoferrin as a Pharmaceutical Agent. *Proceedings of the Sixth International Conference on Lactoferrin*, 2003. (Invited).

Single and Multiple Dose Safety, Tolerability and Pharmacokinetics (PK) of Oral Recombinant Lactoferrin (rhLF) in Healthy Subjects. P. Mojaverian, D. Robbins-Weilert, S. Gbenado, S. Burmaster, D. Dimmitt, G. Erasmus, N. Abdou, A. Varadhachary, E. Yankee, and Y. Wang. *Proceedings of the annual meeting of the American Association of Pharmaceutical Scientists*, 2003.

David Jiang, Karl Werbovetz, Atul Varadhachary, Robert Cole, Paul Englund. Purification and identification of a fatty acyl-CoA synthetase from *Trypanosoma brucei*. *Molec Biochem Parasitol*, 2004; 135:149-152.

K. Guntupalli, G.R. Varadhachary, J. Desai, T. Doshi, A. Varadhachary. Tobacco Prevalence and Risk Factors – A Thousand-Child Survey from India. Proceedings of WATCH (World Assembly on Tobacco Counters Health), 2002.

Rukmini Banerji, Madhav Chavan, Paresh Vaish and Atul Varadhachary. A point of light in Mumbai. *McKinsey Quarterly*, 2001, No. 1:156-165.

Fann M, Davies AH, Varadhachary A, Kuroda T, Sevier C, Tsuchiya T, Maloney PC. Identification of two essential arginine residues in UhpT, the sugar phosphate antiporter of Escherichia coli. *J Membr Biol.* 1998, 164(2):187-195.

Varadhachary A. and Maloney, PC. Reconstitution of the phosphoglycerate transport protein of S. typhimurium. *J Biol Chem.* 1991, 266(1):130-135.

Varadhachary A. and Maloney, PC. A rapid method for reconstitution of bacterial membrane proteins. *Mol Microbiol.* 1990, 4(8):1407-1411.

Maloney PC, Ambudkar SV, Anatharam V, Sonna LA, Varadhachary A. Anion-exchange mechanisms in bacteria. *Microbiol Rev.* 1990, 54(1):1-17.

Book Chapter: Identification and reconstitution of anion exchange mechanisms in bacteria. Chapter in *Advances in Cell and Molecular Biology of Membranes and Organelles*, 1995.

SELECTED PENDING PATENTS

Atul Varadhachary, Karel Petrak, and Rick Barsky. Oral human lactoferrin in the treatment of malignant neoplasms and other hyperproliferative diseases.

Atul Varadhachary, Karel Petrak, Rick Barsky and Bert W. O'Malley, Jr. Intratumorally injected lactoferrin in the treatment of hyperproliferative diseases.

Peter Glynn and Atul Varadhachary. Oral lactoferrin in the treatment of allergic respiratory disorders.

Jose Engelmayer and Atul Varadhachary. Lactoferrin in the treatment of wounds.

Atul Varadhachary, Richard Barsky and Ernest Yankee. Use of lactoferrin in prophylaxis against infection and/or inflammation in immuno-suppressed subjects.

Atul Varadhachary and Federica Pericle. Lactoferrin as an agent in the prevention of organ transplant rejection and graft-versus-host-disease.

Karel Petrak and Atul Varadhachary. Oral Lactoferrin in the treatment of sepsis.

RESEARCH SUPPORT

1. Recombinant Human Lactoferrin to treat Oral Mucositis, 2004
   Grantor: NIH/NIDCR 1 R43 DE 015914-01
   Amount: $325,000
   Role: Principal Investigator

2. Lactoferrin in Primate and Mouse models of Asthma, 2004
   Grantor: NIH/NIAID. 1 R44 AI058553-01. Amount: $100,000
   Role: Principal Investigator

3. Efficacy of rh-Lactoferrin in Diabetic Ulcers, 2003
   Grantor: NIH/NIAMS. 1 R44 AR49961-01. Amount: $850,000
   Role: Co-investigator